UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

DEC 3 0 2005

REPLY TO THE ATTENTION OF

WU-16J

Michael L. Sponsler, Chief
Division of Mineral Resources Management
Ohio Department of Natural Resources
2045 Morse Road, Building H-3
Columbus, Ohio 43229-6693

Dear Mr. Sponsler:

This letter transmits our final report which documents our findings and recommendations from the evaluation we conducted of your Division's UIC program on October 5-7, 2005. The review was quite productive and we continue to be impressed with the high quality of the UIC program being implemented for Class II and III wells in Ohio. We also continue to be impressed with the level of commitment and dedication of both the management team and the staff.

Our overall findings indicate that the Ohio Department of Natural Resource's (Ohio DNR), Division of Mineral Resources Management (DMRM) is operating a sound and effective UIC program. The Ohio DNR's current program continues to be consistent with the approved program and continues to be on track toward meeting program objectives and workplan commitments. The expertise that your program has developed over the years has enabled the DMRM to continue to implement an excellent program, despite resource shortfalls. We commend you and your staff for your dedication in this effort, however, we remain concerned over the lack of technical back-up to the UIC geologist, and we urge you to explore options to help address this potential vulnerability.

Thank you for your hospitality and cooperation during our visit. We look forward to continuing to build on the partnership that has developed between our agencies over the years through technical exchange, information sharing, and coordination on national and regional efforts. We also appreciate the role you have played in supporting the needs of Region 5 and our states through your leadership role in the Ground Water Protection Council. If you or members of your staff have questions or need additional information, please contact me at (312) 353-5089 or John Taylor or Lillie Davis of my staff at (312) 886-4299 or (312) 353-2202, respectively.

Sincerely yours,

Charles T. Elly

Charles T. Elly, Chief
Underground Injection Control Branch

Enclosure

RGH JET

cc: Scott Kell, Deputy Chief, DMRM
David Hodges, Geology Program Supervisor, DMRM
Tom Tomastik, Geologist, DMRM

Ohio Department of Natural Resources
Division of Mineral Resources Management
Underground Injection Control
October 2005 Program Audit

Executive Summary

On October 5 thru 7, 2005, representatives of the United States Environmental Protection Agency (U.S. EPA), Region 5, Underground Injection Control Branch (UIC) met with staff of the Ohio Department of Natural Resources (Ohio DNR), Division of Mineral Resources Management (DMRM) to conduct the Federal Fiscal Year's 2004 and 2005 Audit of their Agency's Class II and Class III injection well UIC program. In Federal Fiscal Year (FFY) 2004, DMRM received a Federal UIC grant of $190,400 and in FFY 2005, DMRM received a Federal UIC grant of $190,800. The U.S. EPA representatives efforts were focused on those actions which occurred within each federal fiscal year noted above under these areas: 1) program administration; 2) permitting and enforcement; and 3) enforcement and compliance. The U.S. EPA representatives conducting the audit were: Charles Elly (UIC Branch Chief); John Taylor (Senior Advisor); Lillie Davis (State Coordinator); Roger Hall (UIC Permitting & Enforcement); and Bill Bates (UIC Enforcement and Compliance).

The last audit of your agency was conducted in May 2001 and this audit was being conducted in accordance with the revised June 1999 Region V UIC State Oversight Policy which was provided to all UIC Primacy Agencies in June 1999. Accordingly, the next audit of Ohio DMRM's UIC program will occur in the year 2008.

The review team's specific observations and recommendations were discussed during the exit interview with Ohio DMRM representatives: Michael Sponsler, Chief, Division of Mineral Resources Management; Scott Kell, Deputy Chief, Mine Safety/Technical Support Services Section; David Hodges, Geology Program Supervisor; and Tom Tomastik, Geologist. They are presented in greater detail in this report, with accomplishments/issues listed at the end. In sum, we have found that the Ohio DMRM continues to administer a high quality UIC program with thorough and timely permit reviews, an enforcement program which focuses on abating and reducing non-compliance, and a field inspection program which has been strengthened through the interactive data transfers with the Risk Based Data Management System (RBDMS). The expertise that the Ohio DNR program has developed over the years has enabled the DMRM to continue to implement an excellent program through the dedication of management and staff, despite resource shortfalls. Among the accomplishments of the past four years, we would specifically highlight the following:

(1) An excellent technical program has been maintained despite seriously reduced staffing levels, due to the dedication of the UIC geologist and his managers.

(2) Increased effectiveness of field operations through the seamless transfer of data between the field and the office. The RBDMS system is being very effectively utilized to

allow this to occur.

(3) The Ohio DMRM has taken a very active role in preparing for the upcoming challenge of carbon sequestration projects, including working with other state agencies on the issue.

(4) Increased national involvement, including a leadership role by key managers and staff with the Ground Water Protection Council (GWPC) and participation on National EPA workgroups.

We commend the Ohio DMRM on their outstanding efforts and we offer our comments to help maintain a historically excellent program. Our principal recommendations focus on the need for additional technical and administrative staff to meet program workloads and provide needed redundancy and the assistance that could be provided to the enforcement program if the state were able to adopt administrative penalty authority.

Program Administration

Observations/Discussion

The general responsibilities of all DMRM employees who provide administrative support for the Class II and III UIC Program, as well as technical support, inspections and enforcement activities are described in the UIC Program Quality Management Plan.

Tom Tomastik, Geologist in the Technical Support Services Section, performs a wide range of functions for the Division's UIC Program. These functions include: all UIC Class II and Class III permitting activity, file reviews, tracking brine hauling and brine spreading, resolutions and reports, coordinates all UIC enforcement activity, and maintains the UIC enforcement database. Tom prepares all UIC Chief's Orders (Administrative Orders), which are then signed by Scott Kell, Deputy Chief. Additionally, as part of the Division's agreement with Ohio EPA, Tom reviews and comments on Permits to Operate (PTO) and Land Ban Petitions for all Class I wells and reviews new applications for Class V injection wells in Ohio. Dave Hodges, Geology Program Supervisor of the Technical Support Services Section, reviews all UIC permitting activity and enforcement requests. Additionally, Dave prepares the annual UIC grant. Currently, most of DMRM's Mineral Resources Inspectors (MRIs) perform inspections for both the mining and oil and gas industries. There is a possibility that reorganization within DMRM may change the field duties of the inspectors back to industry specific inspections.

In addition to UIC work, Tom Tomastik spends approximately 25 percent of his time conducting complex groundwater investigations related to coal or industrial aggregate mining operations. Currently, 23 MRIs conduct the majority of all the UIC inspections. Unannounced inspections are conducted at least once every 11 to 12 weeks. Field Supervisors, Jeff Fry, Joe Hoerst and Jay Cheslock, review all UIC inspections and

transfer these inspections to the main RBDMS database. Occasionally, Tom Tomastik or geologist, Clark Scheerens, assists with coverage of UIC field activities.

During the audit session, Jeff Fry, West Region Manager, gave a presentation of the Division's field version of RBDMS, which included the enforcement and inspection database and the connection to GPS and TopoQuads software, used by the Division to spot well locations in the field.

Organizational and Rule/Procedural Changes

Observations/Discussion

On July 1, 2000 the Ohio Department of Natural Resources (Ohio DNR) reorganized two divisions by combining the former Division of Oil and Gas and the Division of Mines and Reclamation into a new division called the Division of Mineral Resources Management (DMRM). This new division manages the coal mining, industrial minerals, oil and gas industries. DRMR has a total of six field offices to cover all field activities. Field offices for DMRM are located in Salem, Jackson, Uniontown, Cambridge, New Philadelphia, and Columbus. Most field staff has been successfully cross-trained in at least two program areas. Historically, one area of regulatory oversight was the oil and gas plugging rules, which differed significantly between the two former Divisions. The rules from the Division of Mines and Reclamation were less stringent in some cases than those of the Division of Oil and Gas, and these less stringent rules applied to all plugging operations in coal-bearing areas (except for UIC wells). Within the last two years, DMRM has worked to combine these plugging rules into one set of rules, which are now officially in place.

New rules for urbanized oil and gas drilling areas have also become effective as a result of House Bill 278. These rules became effective in September 2005. Other rule changes have primarily been relatively minimal and the Division has consolidated all of the oil and gas rules in an easily accessible link on the Division's website. One area of potential future UIC rule development is with regard to carbon sequestration. This has the potential to generate a very significant workload for DMRM and the state wants to be prepared, especially since Ohio DMRM is in competition for the "Future Gen" demonstration project. Scott Kell has been appointed as a member of the State Future General task force.

Recommendations/Conclusions

The Ohio DMRM has addressed a program weakness by implementing new plugging rules throughout the state, and as a result, the UIC program rules are up-to-date and easily accessed on the Division's website. We support the state's effort to stay ahead of the curve by preparing for a potential large workload of carbon sequestration injection projects.

Data Management

Observations/Discussion

It has now been 10 years since the Ohio DMRM has implemented the RBDMS. The system was developed by consultants for the GWPC with funding largely provided by the Department of Energy. The Ohio DMRM played a major role in the overall system development and several of the Division's personnel served on the GWPC "RBDMS Users Group". Additionally, Gregg Miller, the Division's computer specialist, has developed the field version of RBDMS, the links to the well spot software and GPS location data, and the enforcement database.

RBDMS allows a state to manage the entire oil and gas program, including UIC, with the flexibility to develop specific modules for the individual needs of that state. The Ohio DMRM has chosen to do that and has placed special emphasis on the field module, which was demonstrated to the review team by Jeff Fry. This module allows the field inspectors to enter real time data directly into their laptops, perform the necessary inspections, or witnessing well constructions, or mechanical integrity tests (MITs) in the field and then download this data into the Division's main RBDMS database in Columbus. All field data is reviewed by the field supervisor, who then transfers the data to the Columbus database. Data is usually downloaded by the MRIs about twice a month. As a result, central office staff has relatively real time information on field activities, including violations, and can take enforcement actions in a very timely manner. RBDMS has also been used to improve the efficiency of the permitting program and is one of the factors, which allows the state to manage that large workload with the minimal staff resources available. At this point in time, the state has not chosen to use RBDMS for reporting purposes, such as generating 7520 reporting forms. Ohio DMRM has decided to wait until USEPA reaches a decision of what is to be reported and in what format, before they consider using RBDMS for that purpose.

Recommendations/Conclusions

The use of RBDMS has significantly aided the Ohio DMRM UIC program. The efficiencies of the system, especially with regard to field activities and permitting, have allowed Ohio DMRM to operate an effective program despite resource shortfalls. Once U.S. EPA finalizes reporting formats, the Ohio DMRM may wish to consider using RBDMS for that purpose.

Quality Assurance Management Plan (QMP)

Observations/Discussion

As required, Ohio DMRM Quality Management Plan (QMP) was submitted and approved by U.S. EPA in November 2002. Ohio DMRM has developed 14 standard operating procedures to implement the QMP.

Recommendations/Conclusions

Ohio DMRM was reminded that their QMP was approved for five years and we asked that Ohio DMRM continue to update their QMP working towards the coming date of submission of May 2007.

UIC Primacy Program Update Package

Observations/Discussion

Ohio DNR's 147 primacy package for the program was submitted and approved in 1982 by U.S. EPA. Since Ohio DMRM manages Class II and Class III wells the 147 update will be needed due to the reorganization and the rule changes for annular disposal wells.

Recommendations/Conclusions

U.S. EPA is waiting on directions from Headquarters to determine what would be needed for Ohio DMRM to submit a complete update and how the package should be submitted. The U.S. EPA will update the Ohio DMRM on the outcome.

Permitting

Observations/Discussion

For the Federal Fiscal Year (FFY) 2004 and the 1st and 2nd quarters of FFY 2005 the Ohio DMRM issued approximately 14 Class II and 12 Class III injection well permits. From this group, three Class III (solution mining permits) and two Class II (salt water injection wells) were selected for detailed review. The Class III permit applications were thorough and well documented. Cement bond logs were required on the long string casing and Standard Annulus Pressure Tests (SAPT) or the water-brine interface test for part one of the MIT for Class III wells, which are witnessed by a field inspector. The requirement of the bond log on the long string casing should be adopted on a national level for all Class III wells. The Class II permit applications were equally thorough and well documented using the permit application checklist in each file. One Class II permit reviewed had three wells in the area of review (AOR) that did not have cement covering the injection zone on the long string casing. The DMRM used the variance allowed in their regulations, Section 1501: 9-3-05-(A)(7), which allows for fluid level monitoring in the long string annulus of these wells rather than corrective action such as squeeze cementing. This along with the stipulation that the maximum injection rate is less than 25 barrels per day, more than adequately protects the underground sources of drinking water (USDW) in the ¼ mile AOR.

Recommendations/Conclusions

The permit audit shows a continuation of the Ohio DMRM very thorough UIC program, with an excellent field/inspection presence. The UIC staff reviewed all permits applications internally and the field staff witnessed the critical construction operations such as setting the tubing/packer and cementing of the surface casing. Also all (100 percent) of the MITs were witnessed and all (100 percent) of the conventional Class II wells were inspected every 11 to 12 weeks. All of the UIC field inspections are now

being entered directly into the RBDMS with hard copies placed in the well files. All permit actions were on the conservative side and the permits/conditions were found to be protective of underground sources of drinking water.

Field Inspections

Observations/Discussion

After reorganization of Division (consolidating Oil and Gas and Mining and Reclamation) there was an initial drop in UIC inspections and state did not meet their target for inspections during an initial year. The inspection rate has rebounded and Class II wells now get an inspection about once every 10 weeks. Other inspections include approximately 2400 temporarily abandoned AD (TAAD) wells, which are inspected at least once every 5 years and new Class II and Class III well construction, UIC well plugging, and citizen complaints. In some cases, inspectors have inspected a UIC well site eight or nine times during the well construction phase.

Ohio DMRM's field presence for their UIC program is one of their strong points. It is evident that Ohio DMRM is quite diligent in their efforts to monitor permitted facilities for compliance. This is made more apparent by the fact that the field inspector's UIC duties are a small portion of their overall responsibilities. Ohio DMRM's strong field presence is also carried out by the "omnipresence" of the field inspectors, who inspect these facilities as frequently as once every 10 weeks (on average). In part, this is likely do to the use of the RBDMS. The field inspectors are currently using laptops in the field to enter data into the RBDMS database. The system also, allows them to check a facility's history on site and to assess any enforcement action if necessary. The DMRM has also developed custom queries to enable managers to generate reports that list inspection activities by inspector and by well.

Due to the efforts of the field inspectors Ohio DMRM is able to witness 100 percent of the salt-water injection well plugging operations, 100 percent of the mechanical integrity test, and about 90 percent of the setting and cementing of surface casing.

Recommendations/Conclusions

Ohio DMRM continues to run an effective field inspection program that utilizes technology to achieve its goals.

Annular Disposal (AD)

Observations/Discussion

The Ohio DMRM continues to reduce its number of temporarily abandoned annular disposal (TAAD) wells using the regulations adopted in 1982, 1984 and 1989. The number of TAAD wells removed from that status since October 1, 1992 is approximately 7750 wells; leaving the number of currently authorized AD wells at approximately 115 wells.

The Ohio DMRM stores data for all of the active injection wells in its RBDMS database. This database contains the well name/location, operator information, formation tops, production and injection intervals, drilling/completion data and other historical data for all Class II & III wells. The database is used for scheduling and tracking AD well MITs/results, Notice of Violation, Chief's Orders (AOs), other formal enforcement action, permit tracking, and UIC well data. The database is also used to automatically generate letters withdrawing approval for AD wells when no MIT has been performed as required and to notify the inspector to conduct a follow-up inspection to verify that the well has been disconnected.

All current annular disposal wells on the inventory meet current construction requirements including cement behind the casing. There are currently 110 active AD wells in Ohio. They must pass an initial MIT test before they can be used and then again once every 5 years. There is no expiration date for TAAD wells and no mandatory testing requirements for them so long as they stay in the TAAD category.

Recommendations/Conclusions

The Ohio DMRM has done a commendable job of reducing the number of TAAD wells from a high of approximately 10,000 wells down to approximately 2400 at this time. Since these wells are not tested for MI while inactive; our only suggestion to improve the program would be to obtain a fluid level on the annulus when inspections are performed or require the operator to submit a fluid level on an annual basis.

Mechanical Integrity Tests (MIT)

Observations/Discussion

All mechanical integrity tests are a permit condition for all Class II and Class III wells. Monthly data sheets and the RBDMS database are used to track conventional injection well MIT status. Every fall, a computer-generated letter is sent to all AD well operators notifying the operator of the date by which the test must be completed. Most MITs failures in conventional Class II injection wells are the result of tubing or packer failures. Any well losing mechanical integrity (MI) or failing a MIT, a Chief's Order is issued (unless the company immediately ceases operation and brings in a well work over rig to repair the well) and the injection well must be shut-in immediately until the cause of failure is corrected, or the well is to be plugged within six months. Inspectors witness all repairs. The inspector has a detailed testing report to record MI tests, along with detailed information on well construction, location and test data. It the well fails the test; the operator can continue to repair the injection well or apply for a permit to plug and abandoned the well.

The Ohio DMRM uses the standard annulus pressure tests (SAPT), annual pressure monitoring (APM), monthly minitests, and the positive displacement test (PDT) for Part I of MIT for Class II injection wells. Initial SAPTs are required on all new or converted Class II saltwater injection and enhanced recovery project (ERP) wells. A SAPT is also required any time the packer is unset or removed from the well. The required test

pressure (the maximum injection pressure or 300 psi, whichever is greater) is held for 15 minutes with an allowable pressure change of (+/-) five percent. State inspectors or geologists' witness 100 percent of all pressure tests, including retests after the packer has been set. All conventional Class II wells are required to either continuously monitor the annulus pressure (APM) or perform monthly mini-tests to demonstrate MI. APM is where a positive pressure must be kept on the annulus and monitored by the operator monthly. The other option is to conduct a "mini-test" where the operator can conduct a monthly SAPT pressure test at 200 psi or greater for 15 minutes with an allowable (+/-) five percent change in pressure. Inspectors check the annulus pressure during routine inspections and often witness the mini-tests. Annular disposal well MITs are run using nitrogen to displace the fluid below the surface casing and the pressure is held for one hour with a (+/-) one percent change allowed. The test pressure must be at least the pressure required using the following formula: {[(casing depth ft)(0.433psi/ft)] + 50 psi}. The Division revokes authorization to use annual disposal wells, which have not conducted and passed a MIT by the required five year date subsequent to initial MI tests. Class III wells require an initial SAPT and then the freshwater-brine-interface test once every five years. For conventional Class II wells, the operator is required to file an annual report summarizing these tests, which also include injection volumes, maximum/daily average injection pressures and annulus pressure. Class III well operators must file reports on a quarterly basis. Class II annual disposal and Class III wells require MITs every 5 years.

Part 2 of MI, the lack of fluid movement adjacent to the well bore, is demonstrated through there view of cementing records for Class II wells; which require a minimum of 300 feet or cement above the injection zone (calculated or verified by cement bond log). For Class III wells cement bond logs are required to verify the quality of the cementing job to verify Part 2 of MI.

Recommendations/Conclusions

The permit audit shows a continuation of the Ohio DMRM's very thorough UIC program, with an excellent field/inspection presence. The UIC geologist reviewed all permit applications internally and the field staff witnessed the critical construction operations such as setting the tubing/packer and cementing of the surface casing. Also all (100 percent) of the MIT's were witnessed and all (100 percent) of the conventional Class II wells were inspected every 10 to 11 weeks. All of the UIC field inspections are now being entered directly into the RBDMS with hard copies placed in the well files. All permit actions were on the conservative side and the permits/conditions were found to be protective of underground sources of drinking water.

Well Pluggings

Observations/Discussion

In 2004, Ohio DMRM issued 1013 permits to Plugging and Abandonment wells (up 20.5 percent from 2003) with an average turn around of 14 days. Typically, in the Idle and Orphan well program, approximately 60 to 70 wells are plugged in a given year. The Idle

and Orphan well plugging program (I&O Program) is funded by severance taxes from the oil and gas industry. Typically, the Division spends approximately $800,000 to $1,000,000 annually on idle and orphan oil and gas wells. Wells on the I&O Program are scored based on their environmental or health, and human safety factors. High priority wells are plugged first under this program. In the last several years, the Division has plugged three I&O Class II wells, where the owner of said wells had been deceased for some time.

Ohio DMRM plugged 75 orphan wells in 2004. This includes 60 wells that were found through the Landowners Grant I&O Program. This money is acquired through severance tax, fines and bond forfeitures. Currently there are approximately 400 wells in the I&O Program. A number of these orphaned wells date back to the late 1800s and are located in northwestern Ohio or in the Cleveland, Ohio area, and were previously unmapped. Recently, one technique that Ohio DMRM has used is to have an offending operator plug a few abandoned wells in lieu of a paying a penalty.

Recommendations/Conclusions

Ohio DMRM is doing an admirable job in plugging wells. In addition, Ohio DMRM has found unique ways to plug abandoned wells. They have also established innovative means to procure funds for their Orphan Well Program.

Enforcement and Compliance Assurance

Observations/Discussion

The focus of US EPA, Region 5's file review was on Notices of Violations (NOVs) and Chief's Orders (Administrative Orders). During the 2005 Federal Fiscal Year, Ohio DMRM issued 24 NOVs and AOs for Class II wells. Fourteen of these were AOs for revocation of annular injection well operations. In 2005, Ohio DMRM witnessed 100 percent of the Class II and Class III injection well plugging operations. They also witnessed 100 percent of the mechanical integrity tests and about 90 percent of the setting and cementing of surface casing.

The issuances of the NOVs are done in the field by the field inspectors or by Tom Tomastik in the Columbus office. Field issuance is accomplished via the RBDMS database, which they can print off of their laptop computers in the field. The notice of violation is given to the operator onsite or is mailed to the operator. Typical NOVs are issued for inability to inject, pollution and contamination, identification, valve replacement, suspension of operation, and failure to a conduct minitest. Violations that warrant an administrative order (Chief's Order) are called into Tom Tomastik the day of the inspection and the Chief's Order is issued within one day. One reason Ohio DMRM has seen increasing instances of noncompliance is the inability of the field inspectors to make follow-up visits. This is in part due to the UIC aspect of the field inspectors' responsibilities being in competition with various other portions of the mineral resources program. The Ohio DMRM is not able to require a monetary penalty for significant noncompliance violations, as it does not have penalty authority. The only penalizing

authority that Ohio DMRM has is the ability to pull the operators' bond, place the operator on the permit hold list, or issue suspension orders.

One area of concern is change in ownership notification. During some of the field inspections, the inspector was not aware that the well was under new ownership. However, this may be due to field version of the RBDMS database not having all of the new information updates at the time of the inspection. Ohio DMRM has stated that field copies of the RBDMS are now current.

Recommendations/Conclusions

This audit shows that Ohio DMRM has a very thorough Underground Injection Control Program. The staff's issuance of violations is very efficient. This is to a certain extent due to use of the RBDMS database in the field. The Ohio DMRM should continue fine-tuning this system. To this end, Ohio DMRM should also continue doing QA/QC of this system to insure that RBDMS is up-to-date. If the State were to allow the UIC program the ability to assess penalties without having to bring a case all the way to the Attorney General's level, this would increase compliance rates and eventually decrease the number of violations that the field and office staff would have to deal with in the future.

Citizen's Compliants

Observations/Discussion

The number of citizen complaints has dropped significantly in recent years. However, with the recent increase in drilling activity in Ohio, complaints may increase over the next few years. They continue to hear from Curtis Hill on an occasional basis.

The complaints from Curtis Hill have been ongoing since 1985. A distribution line leak in the neighborhood caused soil contamination, which was cleaned up. Mr. Hill's well has shown 200-ppm chloride, but has never exceeded the Secondary Standard for public drinking water supplies. Furthermore, DMRM has not established any link to contamination but rather feels that it is due to the geology (Devonian shale where one in five wells is naturally saline). Mr. Hill was previously successful in a civil case against the operator regarding the line leak. Mr. Hill's newest compliant includes concerns by Mr. Hill pertaining to a lease agreement, for which the Department of Minerals Resources Management does not have the authority to provide the relief that he's requesting. Lease agreements between landowners and oil and gas developers are strictly private matters. Lease agreements are privately negotiated contracts that are not under the Ohio DNR jurisdiction. Any issues regarding leases and payment agreements must be handled through private legal avenues. The Division asked Mr. Hill if he wanted the Division to re-sample his well and he refused. There is some indication that Mr. Hill no longer lives on the property and just rents it out. This compliant was referred to Scott Kell and he responded to Mr. Hill's complaint. The Division has not received any response back from Mr. Hill.

Recommendations/Conclusions

The Ohio DMRM has established a record of effectively responding to citizen complaints. Complaints are often caused by a lack of information, and the Ohio DMRM has made a strong effort to educate the citizens who contact them about program requirements and legal authorities. It is recognized that some citizens will repeatedly pursue the same points, despite the best efforts of the regulatory agency to fully address them, and the Ohio DMRM is commended for patiently continuing to respond to such requests.

National Leadership

Observations/Discussions

The Ohio DMRM has consistently played a significant role in the national leadership of the UIC program. This has been accomplished through participating in National USEPA Workgroups on activities such as measures and reporting and through a strong leadership role in the Ground Water Protection Council (GWPC). Tom Tomastik currently serves as Co-Chair of the Class III Division of GWPC and is the State Class III Board Member to the GWPC Research Foundation. He has also given presentations on Class III wells to professional organizations. Scott Kell, Deputy Chief of the Division of Minerals Resource Management, is a member of the GWPC Board of Directors representing the Region 5 UIC programs. The Deputy Chief is currently the vice president of GWPC and has represented the organization at many important national meetings.

This active participation has led to wide recognition of the accomplishments of the Ohio DMRM, as well as providing an opportunity for serious consideration of the major issues, which the Agency has faced. As a consequence, the input of the Ohio DMRM is routinely sought whenever USEPA Headquarters considers a major policy decision. The state is also able to serve as champion of Regional concerns affecting all Region 5 UIC programs.

Recommendations/Conclusions

Ohio DMRM national leadership role has been highly effective and has helped regional concerns receive proper attention. We urge the Agency to continue in this role.

Overall Accomplishments/Issues:

- DMRM is considering re-instituting step rate tests as an option for operators. This step rate test will be written as an SOP and an agreement must be reached with the industry regarding any appeals of the test results.

- DMRM is starting to develop a regulatory framework for FutureGen or any other CO2 projects in cooperation with Ohio EPA, as they feel that they will eventually be needed.

- DMRM has accepted the operator plugging a few abandoned wells in lieu of a penalty. This is what EPA refers to as a Supplemental Environmental Project or SEP.

- Tom Tomastik performs a review of all Ohio EPA Class I PTOs and Land Ban Petitions and reviews and comments on new Class V permits for the Ohio EPA. Some of the Class V applications reviewed have included: injection of cement or flyash into abandoned underground coal mines for stability near Ohio highways and injection of coal waste by-products into abandoned coal mines.

- The State of Ohio has formed a "Future Gen" task force. This group will include ODNR, Ohio EPA, and some other state agencies. The group will work to select potential sites for the proposed Department of Energy FutureGen Plant. Site characterization of the geology and potential injection zones are critical to this process.

- U.S. EPA is concerned with the "lack of support" for Tom Tomastik in the UIC Program and suggests DMRM consider hiring additional support staff and entry-level technical staff to assist in the UIC Program.